DALIMOV, Ziyad Aminovich

[Hydroaeroiontherapy for hypertension] Gidroaeroionoterapiia gipertonicheskoi bolezni. Tashkent, Medgiz, UzSSR, 1959. 151 p. (MIRA 13:9)
(HYPERTENSION) (AIR, IONIZED)

DALIMOV, Z.A., kand.med.nauk; ADAMENKOVA, O.D., klinicheskiy ordinator

Treatment of hypertension with Tashkent mineral water. Trudy Uz. gos. nauch.-issl. inst. kur. i fizioter. no.15:183-192 '59. (MIRA 14:9)

(HYPERTENSION) (MINERAL WATERS)

OBROSOV, A.N., otv. red.; MUMINOV, Ya.K., zam. otv. red.; BULATOV, P.K., red.; VASIL'YEV, L.L., red.; DALIMOV, Z.A., red.; KATSENOVICH, R.A., red.; KETKO, M.I., red.; MINKH, A.A., red.; CHERNYAVSKIY, Ye.A., prof., red.; SHRAMKOVA, G.A., red.; TSAY, A.A., tekhn. red.

[Aeroionization and hydroaeroionization in medicine] Aeroionizatsiia i gidroaeroionizatsiia v meditsine; materialy. Red. kollegiia: A.N.Obrosov i dr. Tashkent, Medgiz, 1962. 305 p. (MIRA 16:6)

1. Vsesoyuznaya konferentsiya po aero- i gidroaeroionizatsii, Tashkent, 1960. 2. TSentral'nyy institut kurortologii i fizioterapii, Moskva (for Obrosov). 3. Kafedra fiziologii cheloveka i zhivotnykh Leningradskogo gosudarstvennogo universiteta (for Vasil'yev). 4. Uzbekskiy gosudarstvennyy nauchno-issledovatel'skiy institut kurortologii i fizioterapii im.N.A.Semashko (for Katsenovich). 5. Gospital'naya terapevticheskaya klinika Leningradskogo gosudarstvennogo meditsinskogo instituta im. I.P.Pavlova (for Bulatov).
(AIR, IONIZED--THERAPEUTIC USE)

BAKH, A. S.

"Laboratory Research on Earth-Digging Machines," Vestnik mashinostroyeniya i traktorostroyeniya, Feb. 1948, p. 6-9

Dr. Tech. Sci.
VIME (A-U Inst. for Mech. and Electr.)

DALIN, A. D. and P. V. PAVLOV.

Rotatsionnye gruntoobrabatyvaiushchie i zemlerdiuye mashiny. Moskva, Mashgiz, 1950. 257 p. illus.

Bibliography: p. 255-256.

Dredging and excavating rotary machines.

DLC: TA735.D3

SO: Manufacturing and Mechanical Engineering in the Soviet Union, Library of Congress, 1953.

DALIN, A., SERDECHNYY, A.

Agricultural Machinery

New machines for the improvement of meadows and pastures. Kolkh. proizv. 12, No. 2, 1952.

9. Monthly List of Russian Accessions, Library of Congress, June 1952. Unclassified.

COUNTRY : USSR

ABS. JOUR : Insect and Mite Pests, No. 4, 1953, No.

AUTHOR : Dalin, A.D.; Karavyenskiy, N.S.
INST. : All-Union Res. Exp. Inst. of Fodders
TITLE :

JOUR. PUB.: Kolkhoz, 1952, No. 5, 51-52

ABSTRACT :

... A.P. Admiralov

CARD: 1/1

DALIN, A.D., doktor tekhn.nauk

Combine for soil cultivation and sowing. Mekh. i elek. sots. sel'khoz. 16 no.4:22-26 '58. (MIRA 11:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut kormov imeni V.R. Vil'yamsa.
(Agricultural machinery)

DALIN, A.D., doktor sel'skokhozyaystvennykh nauk; OS'MAKOV, I.G., kand. sel'skokhozyaystvennykh nauk; KARAVYANSKIY, N.S.

New tillage practices for raising corn and root crops outside the Chernozem belt. Dokl. akad. sel'khoz. 23 no.9:7-13 '58. (MIRA 11:10)

1.Vsesoyuznyy nauchno-issledovatel'skiy institut kormov imeni V.R. Vil'yamsa. Predstavlena otdeleniyem zemledeliya Vsesoyuznoy akademii sel'skokhozyaystvennykh nauk imeni V.I. Lenina.
(Corn (Maize)) (Root-crops) (Tillage)

DALIN, A.D., doktor tekhn.nauk; CHERNENKOV, A.D., kand.sel'skokhoz.nauk; OS'MAKOV, I.G., kand.sel'skokhoz.nauk; KARAVYAKSKIY, N.S.

New methods of cultivating soil for corn and root crops in the non-Chernozem zone. Dokl.Akad.sel'khoz. 24 no.8:45-48 '59. (MIRA 12:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut kormov imeni V.R.Vil'yamsa. Predstavlena akademikom A.N.Karpenko.
(Tillage) (Corn(Maize)) (Root crops)

DALIN, A.D.

"New Methods of Grassland Improvement."

All-Union Scientific Research Inst. of Fodder im. V.R.Vil'yams, Lobnlya, Moscow Oblast'. report to be presented at the 8th Intl Grassland Congress, Reading, England, 11-21 Jul '60

PA 23T63

DALIN, A. M.

Oct 1947

USSR/Engineering
Condensation Products
Pumping Machinery

"Automatic Pumping Out of Condensate," A. M. Dalin, TeploElektroProyekt, 3 pp

"Promyshlennaya Energetika" No 10

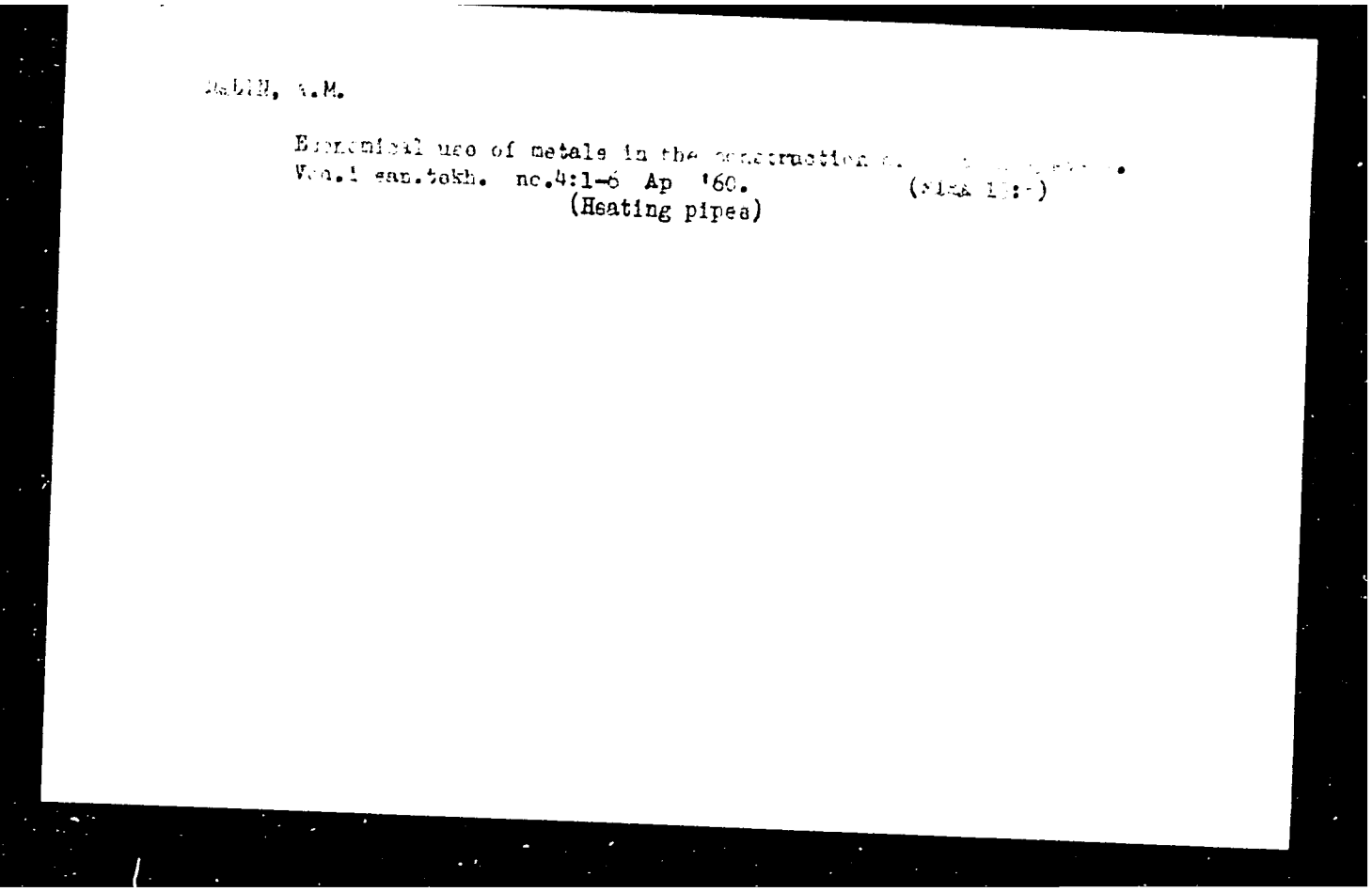
Well illustrated article describing a system of pumping condensate out of condenser vats by means of a floating relay with a Fisher float chamber. This is also a good introduction to an automatic method of pumping condensate out by means of electrolyte relays.

23T63

DALIN, A. M.

DALIN, A. M. --The accumulation and recovery of condensed water. Moskva, Gos. energ. izd-vo, 1949. 239 p. (50-21358)

TH7575.D3



[illegible], A.M.

Economical use of metals in the construction [illegible]. Vod. i san. tekh. no.4:1-6 Ap '60. (MIRA 13:-)
(Heating pipes)

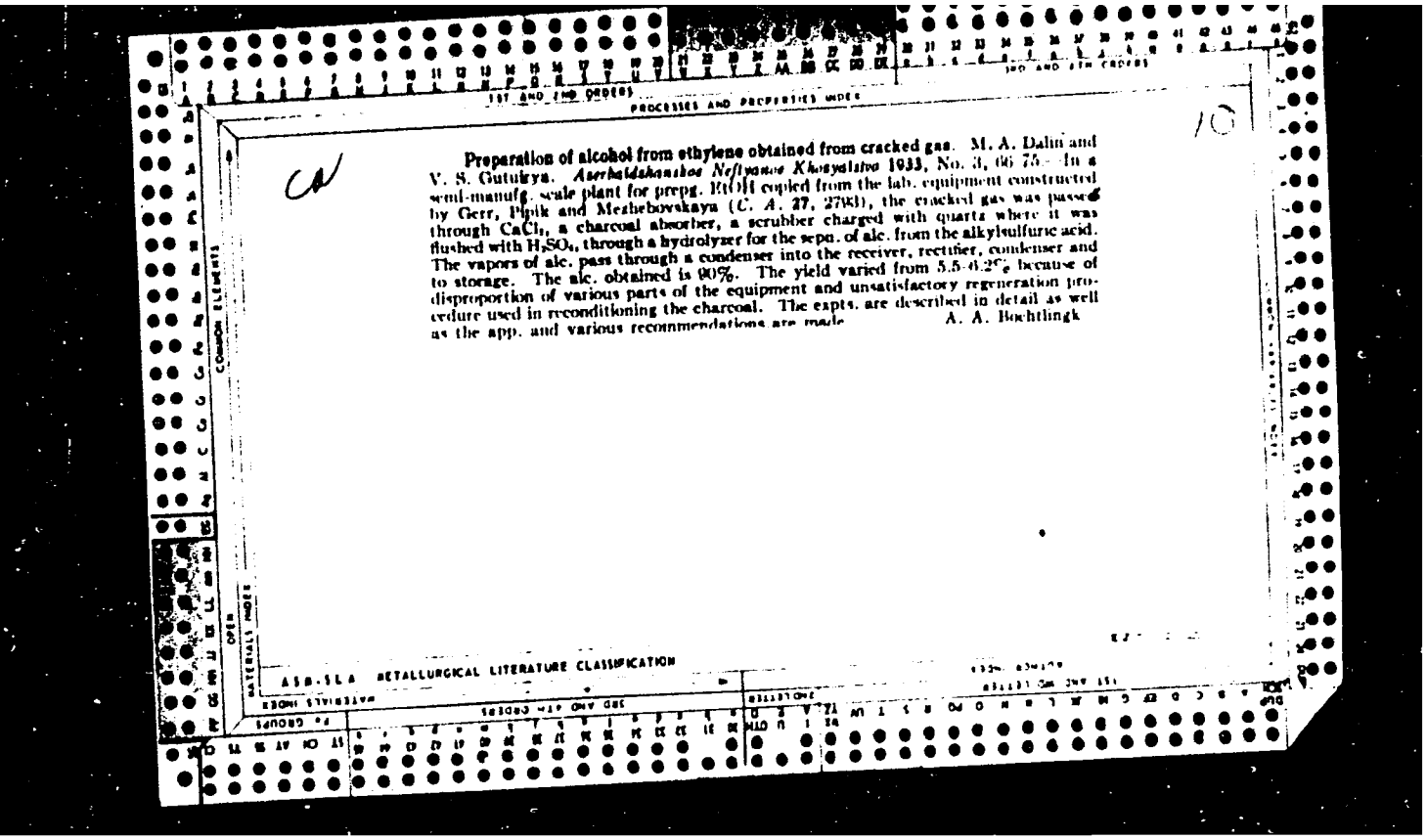
DALIN, A.M., inzh.

Approximation method for determining diameters, lengths, metal expenditures, and capital expenditures of thermal municipal networks. Elek. sta. 31 no.8:33-39 Ag '60. (MIRA 14:9)
(Heating from central stations)

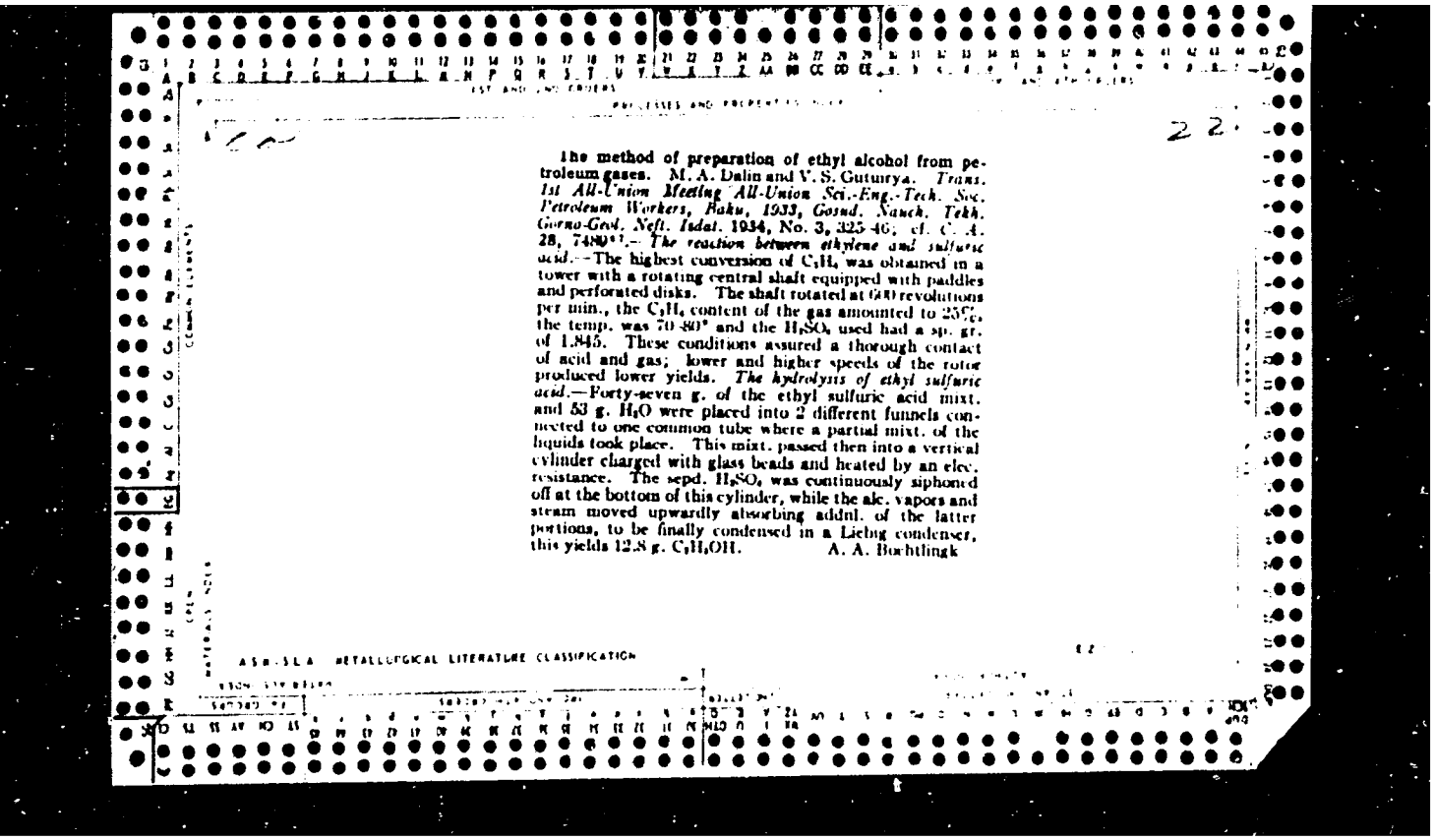
[illegible], [illegible].M., inzh.

Approximation method for determining [illegible] in municipal central heating networks. [illegible] J1 [illegible]. ([illegible]RA 17:11)

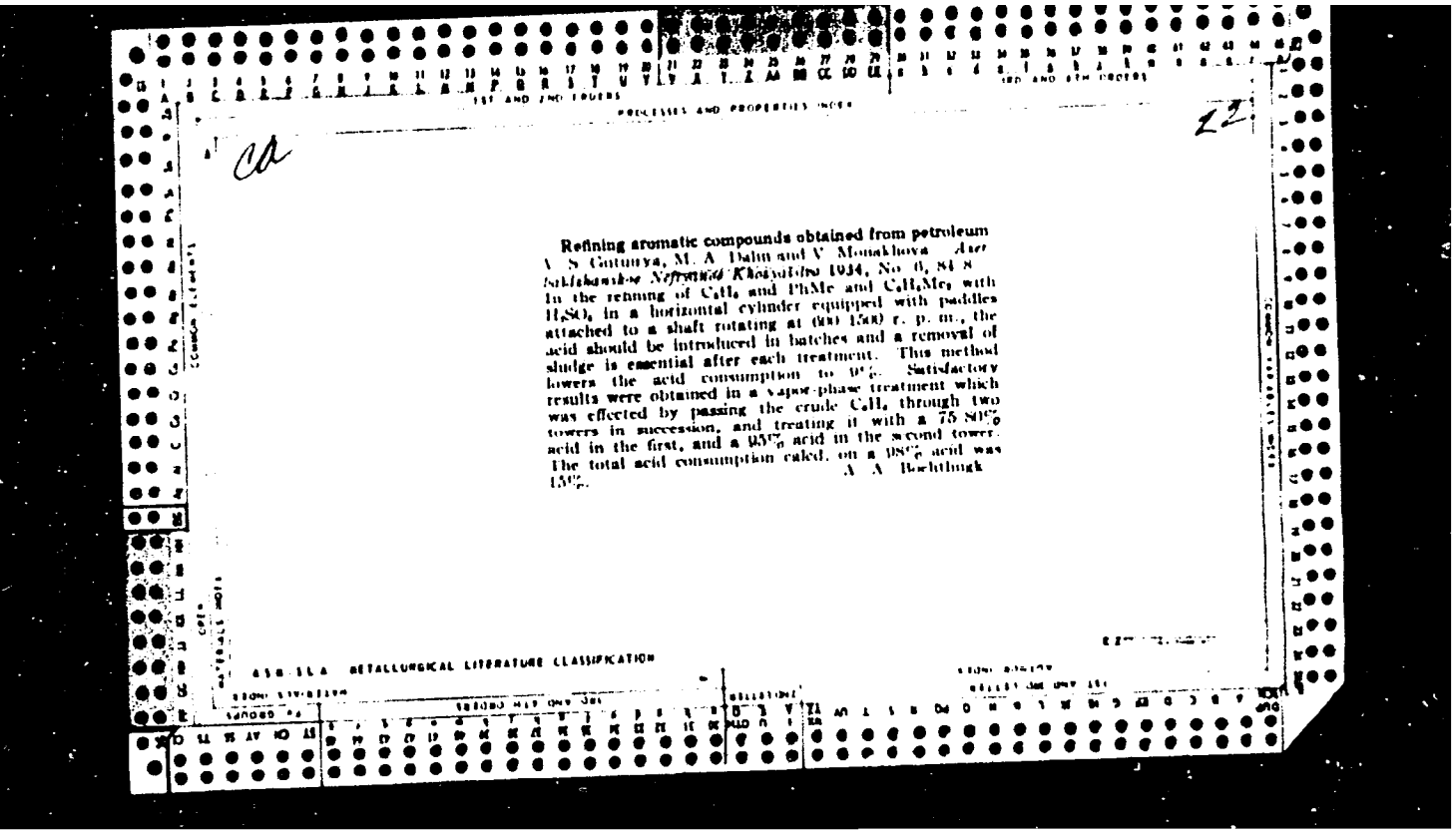
APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000509530005-4"



Preparation of alcohol from ethylene obtained from cracked gas. M. A. Dalin and V. S. Gutnikya. *Azerbaidzhanskoe Neftyanoe Khozyaistvo* 1933, No. 3, 66-75.—In a semi-manufg. scale plant for prepg. EtOH copied from the lab. equipment constructed by Gerr, Plnik and Mezhebovskaya (*C. A.* **27**, 2703), the cracked gas was passed through $CaCl_2$, a charcoal absorber, a scrubber charged with quartz where it was flushed with H_2SO_4, through a hydrolyzer for the sepn. of alc. from the alkylsulfuric acid. The vapors of alc. pass through a condenser into the receiver, rectifier, condenser and to storage. The alc. obtained is 90%. The yield varied from 5.5-6.2% because of disproportion of various parts of the equipment and unsatisfactory regeneration procedure used in reconditioning the charcoal. The expts. are described in detail as well as the app. and various recommendations are made. A. A. Bochtlingk



The method of preparation of ethyl alcohol from petroleum gases. M. A. Dalin and V. S. Gutuirya. *Trans. 1st All-Union Meeting All-Union Sci.-Eng.-Tech. Soc. Petroleum Workers, Baku, 1933, Gosud. Nauch. Tekh. Gorno-Geol. Neft. Izdat.* 1934, No. 3, 325-46; cf. C. A. 28, 7480[9].—*The reaction between ethylene and sulfuric acid.*—The highest conversion of C_2H_4 was obtained in a tower with a rotating central shaft equipped with paddles and perforated disks. The shaft rotated at 600 revolutions per min., the C_2H_4 content of the gas amounted to 25%, the temp. was 70-80° and the H_2SO_4 used had a sp. gr. of 1.845. These conditions assured a thorough contact of acid and gas; lower and higher speeds of the rotor produced lower yields. *The hydrolysis of ethyl sulfuric acid.*—Forty-seven g. of the ethyl sulfuric acid mixt. and 53 g. H_2O were placed into 2 different funnels connected to one common tube where a partial mixt. of the liquids took place. This mixt. passed then into a vertical cylinder charged with glass beads and heated by an elec. resistance. The sepd. H_2SO_4 was continuously siphoned off at the bottom of this cylinder, while the alc. vapors and steam moved upwardly absorbing addnl. of the latter portions, to be finally condensed in a Liebig condenser, this yields 12.8 g. C_2H_5OH. A. A. Buchtlingk

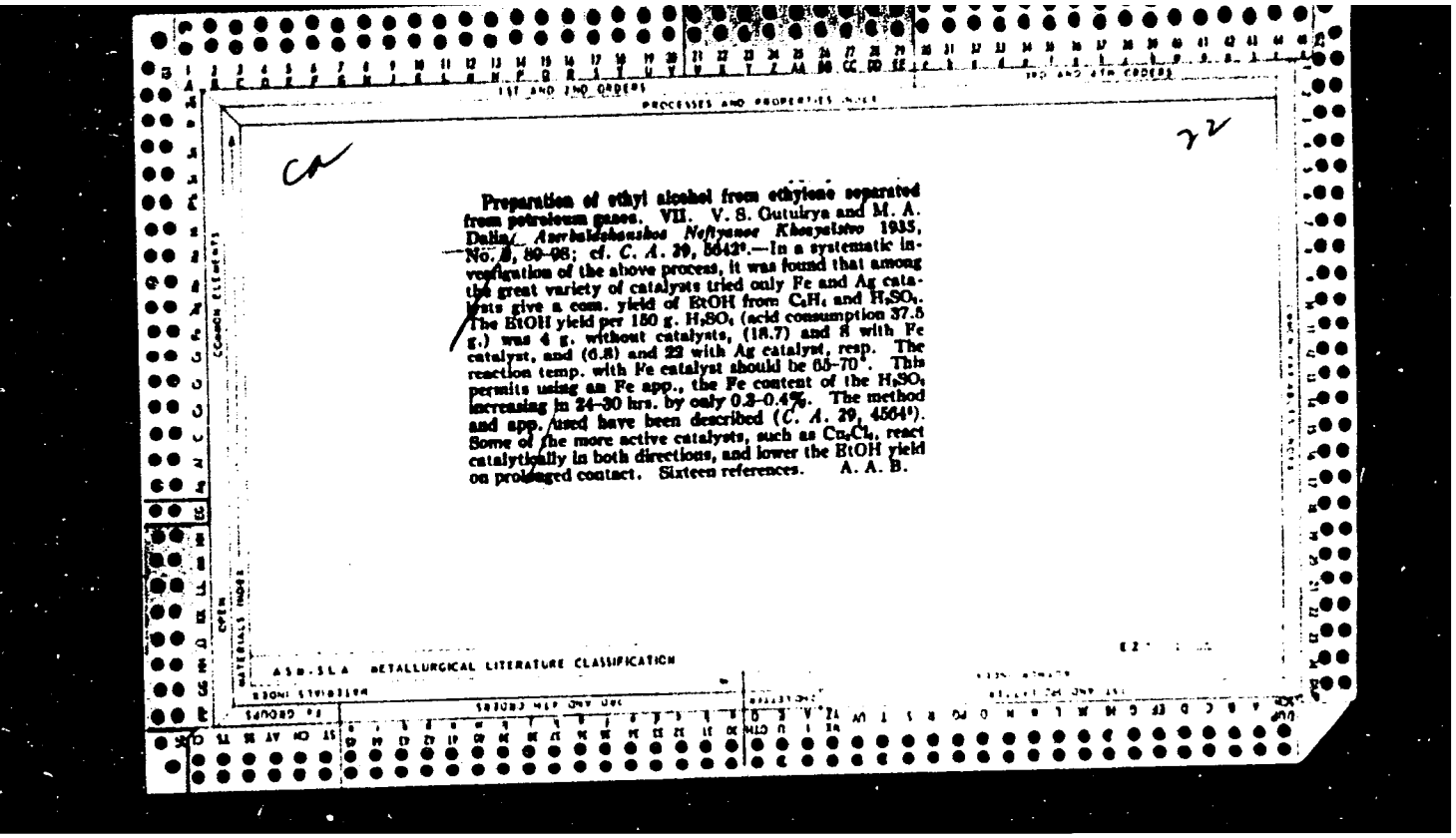


Refining aromatic compounds obtained from petroleum

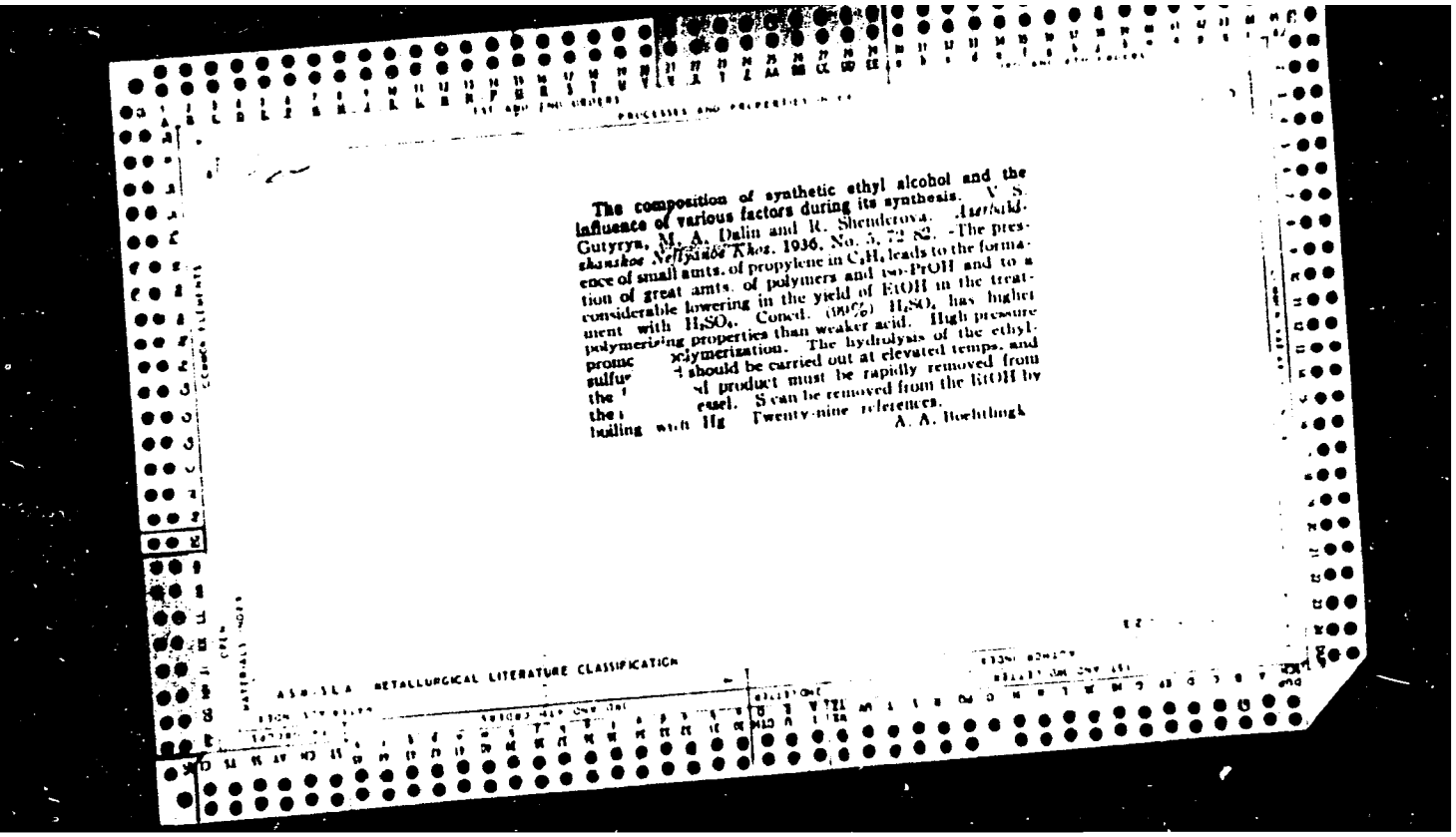
V. S. Gutnova, M. A. Dalin and V. Monakhova. *Azer. Neftyanoe Khozyaistvo* 1934, No. 6, 84-8.

In the refining of C_6H_6 and $PhMe$ and $C_6H_4Me_2$ with H_2SO_4, in a horizontal cylinder equipped with paddles attached to a shaft rotating at (80) 150 r. p. m., the acid should be introduced in batches and a removal of sludge is essential after each treatment. This method lowers the acid consumption to 9%. Satisfactory results were obtained in a vapor-phase treatment which was effected by passing the crude C_6H_6 through two towers in succession, and treating it with a 75-80% acid in the first, and a 95% acid in the second tower. The total acid consumption calcd. on a 98% acid was 15%.

A. A. Berlinguk



Preparation of ethyl alcohol from ethylene separated from petroleum gases. VII. V. S. Gutnikya and M. A. Dalin. *Azerbaidzhanskoe Neftyanoe Khozyaistvo* 1935, No. 8, 89–98; cf. *C. A.* 29, 5642⁹.—In a systematic investigation of the above process, it was found that among the great variety of catalysts tried only Fe and Ag catalysts give a com. yield of EtOH from C_2H_4 and H_2SO_4. The EtOH yield per 150 g. H_2SO_4 (acid consumption 37.5 g.) was 4 g. without catalysts, (18.7) and 8 with Fe catalyst, and (6.8) and 22 with Ag catalyst, resp. The reaction temp. with Fe catalyst should be 65–70°. This permits using an Fe app., the Fe content of the H_2SO_4 increasing in 24–30 hrs. by only 0.3–0.4%. The method and app. used have been described (*C. A.* 29, 4564⁹). Some of the more active catalysts, such as Cu_2Cl_2, react catalytically in both directions, and lower the EtOH yield on prolonged contact. Sixteen references. A. A. B.



The composition of synthetic ethyl alcohol and the influence of various factors during its synthesis. V. S. Gutyrya, M. A. Dalin and R. Shenderova. *Azerbaid. Neftyanoe Khoz.* 1936, No. 5, 72-82. -The presence of small amts. of propylene in C_2H_4 leads to the formation of great amts. of polymers and iso-PrOH and to a considerable lowering in the yield of EtOH in the treatment with H_2SO_4. Concd. (96%) H_2SO_4 has higher polymerizing properties than weaker acid. High pressure promotes polymerization. The hydrolysis of the ethyl sulfuric acid should be carried out at elevated temps. and the ethereal product must be rapidly removed from the reaction vessel. S can be removed from the EtOH by boiling with Hg. Twenty-nine references.

A. A. Boelsing

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

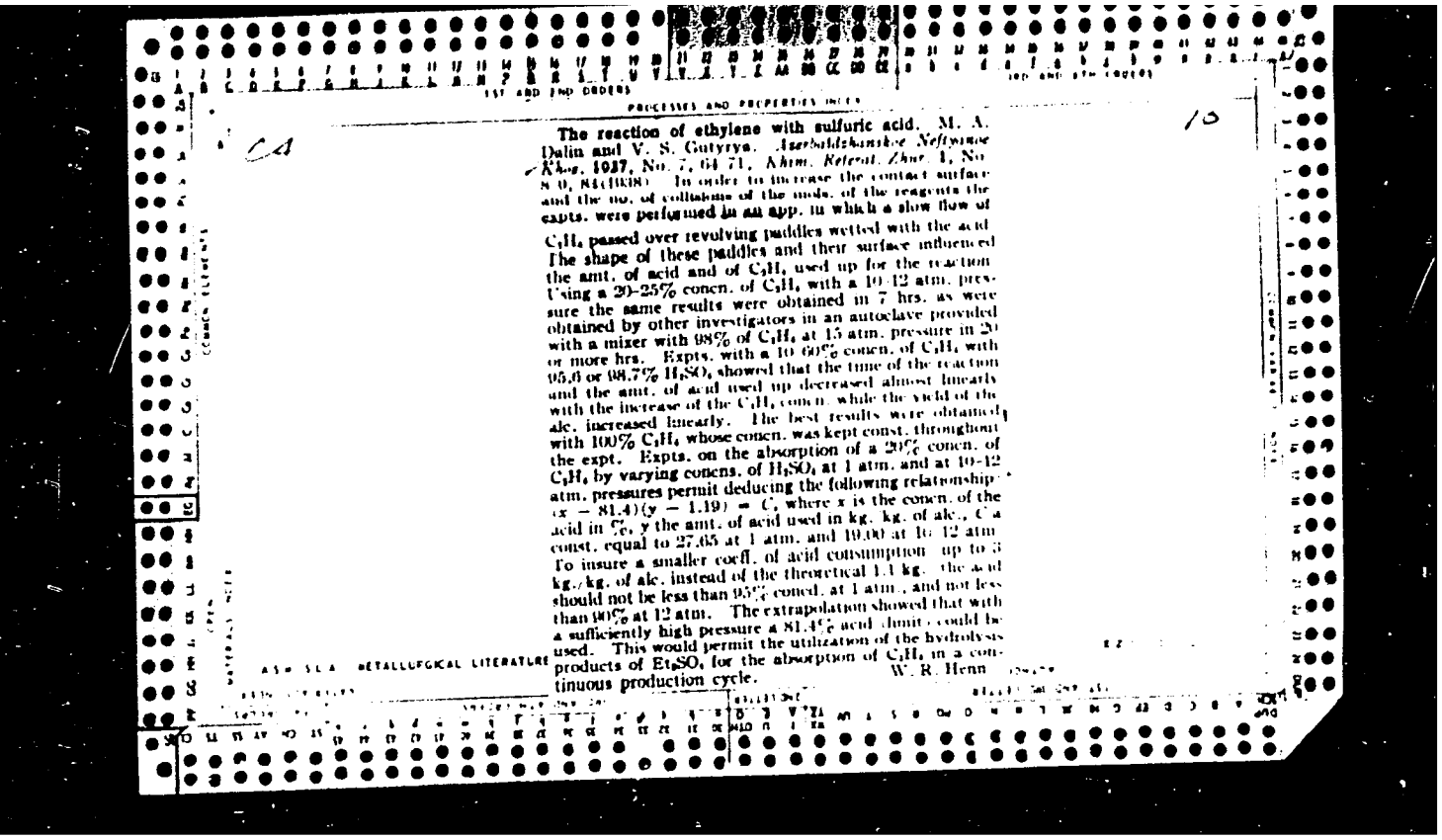
3RD AND 4TH ORDERS

21

Ca

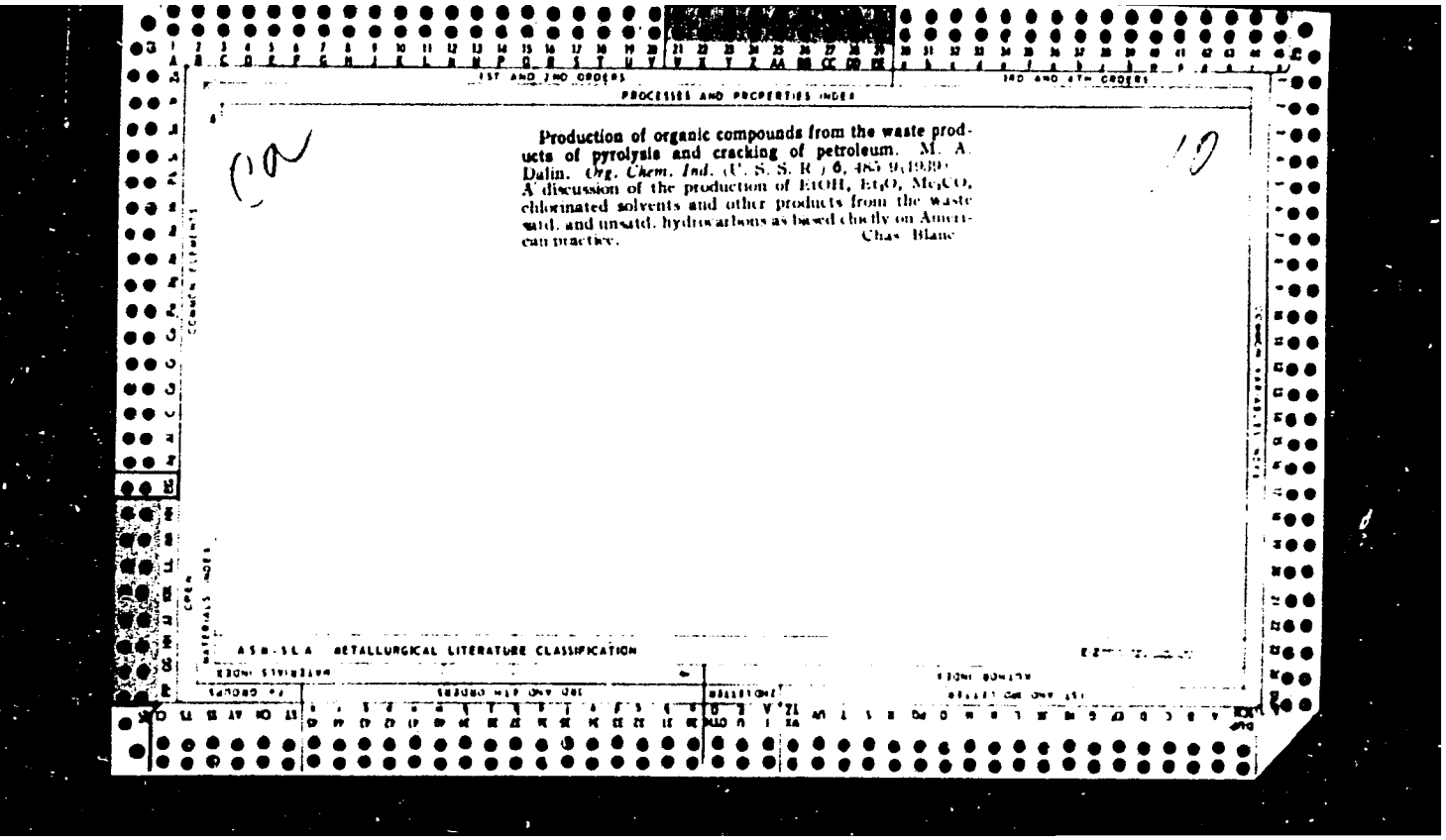
Synthesis of isopropyl alcohol from petroleum gases I. V. S. Gutyrya, M. A. Dalin and A. Gevorkyan. *Azerbaidzhanskoe Neftyanoe Khoz.* 1936, No. 7, 67-71. Propylene is polymerized in insignificant amts. by 93-96% H$_2$SO$_4$ and not at all by 90-85% acid. Acids with a range of 90-93% give almost an identical yield of alc. (44%) and their consumption amounts to 2.2 kg. per kg. of alc. The alc. yield is 38% with 90-85% acids, and the consumption of acid is 2.4-2.8 kg. per kg. alc. The best concn. of H$_2$SO$_4$ for commercial scale processes is 85-86%. The equipment used and the process are described and the results are tabulated. Fifteen references. A. A. B.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



The reaction of ethylene with sulfuric acid. M. A. Dalin and V. S. Gutyrya. *Azerbaidzhanskoe Neftyanoe Khoz.* 1937, No. 7, 64-71; *Khim. Referat. Zhur.* 1, No. 8-9, 84(1938). In order to increase the contact surface and the no. of collisions of the mols. of the reagents the expts. were performed in an app. in which a slow flow of C_2H_4 passed over revolving paddles wetted with the acid. The shape of these paddles and their surface influenced the amt. of acid and of C_2H_4 used up for the reaction. Using a 20-25% concn. of C_2H_4 with a 10-12 atm. pressure the same results were obtained in 7 hrs. as were obtained by other investigators in an autoclave provided with a mixer with 98% of C_2H_4 at 15 atm. pressure in 20 or more hrs. Expts. with a 10-60% concn. of C_2H_4 with 95.6 or 98.7% H_2SO_4 showed that the time of the reaction and the amt. of acid used up decreased almost linearly with the increase of the C_2H_4 concn. while the yield of the alc. increased linearly. The best results were obtained with 100% C_2H_4 whose concn. was kept const. throughout the expt. Expts. on the absorption of a 20% concn. of C_2H_4 by varying concns. of H_2SO_4 at 1 atm. and at 10-12 atm. pressures permit deducing the following relationship: $(x - 81.4)(y - 1.19) = C$, where x is the concn. of the acid in %, y the amt. of acid used in kg. kg. of alc., C a const. equal to 27.65 at 1 atm. and 19.00 at 10-12 atm. To insure a smaller coeff. of acid consumption up to 3 kg./kg. of alc. instead of the theoretical 1.1 kg. the acid should not be less than 95% concd. at 1 atm., and not less than 90% at 12 atm. The extrapolation showed that with a sufficiently high pressure a 81.4% acid limit could be used. This would permit the utilization of the hydrolysis products of Et_2SO_4 for the absorption of C_2H_4 in a continuous production cycle.

W. R. Henn



PROCESSES AND PROPERTIES INDEX

Production of organic compounds from the waste products of pyrolysis and cracking of petroleum. M. A. Dalin. *Org. Chem. Ind.* (U. S. S. R.) **6**, 485-9(1939). A discussion of the production of EtOH, Et_2O, Me_2CO, chlorinated solvents and other products from the waste satd. and unsatd. hydrocarbons as based chiefly on American practice. Chas. Blanc

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

DALIN M.A.

5

Mechanism of the reaction of alkylation of benzene by olefins in the presence of aluminum chloride. M. A. Dalin, P. L. Maslikov, and R. I. Shenderova. *Voprosy Kinetiki, Katalizu i Reaktsionnoi Sposobnosti, Akad. Nauk S.S.S.R., Otdel. Khim. Nauk* 1955, 617–20.—Reaction of $AlCl_3$ with RPh in the presence of HCl, and with C_6H_6 in the presence of olefins, leads to formation of complexes, the decompn. of which with H_2O yields alkylated products. Under similar conditions, reaction of C_6H_6 with $AlCl_3$ in the presence of HCl does not form a complex, and under high temp. conditions there are formed substances which on hydrolysis yield tars. Thus, complex formation occurs by exchange of proton for a radical of alkyl type. The proportion of mono-, di- and polyalkylated derivs. in the complex depends on the compn. of the reaction mixt., indicating an equil. between the components used and the complex formed. The org. part of the complex is a mixt. of alkylated benzenes, and not merely the trialkylated material. Alkylation of C_6H_6 with propylene proceeds in 2 stages: addn. of olefin to the complex and exchange of the hydrocarbon fragment of the complex with the reactants. None of the existing theories cover the alkylation reaction in its complexity.

G. M. Kosolapoff

MAMEDALIYEV,Yu.G.; DALIN,M.A.; MAMEDOV,T.I.

Catalytic dehydrogenation of isopentane fraction. Dokl. Ak Azerb. SSR 11 no.1:13-19 '55. (MLRA 8:10)

1. Institut khimii Akademii nauk Azerbaydzhanskoy SSR.
(Dehydrogenation) (Butane)

Dalin, M.A.

Isomerization of pentenes in dehydration of isoamyl alcohol over aluminum oxide. Yu. G. Mamedaliev, M. A. Dalin, T. L. Maurekov, A. Z. Shikhmamedbekova, and [illegible] Sailov. *Doklady Akad. Nauk Azerbaidzhan. S.S.R.* 11, No. 10, 675-82(1955)(in Russian).—Dehydration of com. Iso-AmOH over Al_2O_3 at 380° with 3.65 sec. contact time is accompanied by isomerization, yielding 3-methyl-1-butene, a somewhat larger amt. of 2-methyl-2-butene, and a smaller amt. of 2-methyl-1-butene. G. M. K.

Inst. Chem., AS Azerb SSR

DALIN, M.A.

USSR/Chemical Technology - Chemical Products and Their Application. Industrial Organic Synthesis I-1

Abs Jour : Ref Zhur - Khimiya, No 1, 1958, 2144

Author : Dalin, M.A., Markevich, S.M., Borisov, A.M., Mamedova, V.M.,

Inst : Academy of Sciences USSR

Title : Technological Development of the Synthesis of Ethyl Alcohol by Direct Hydration of Ethylene.

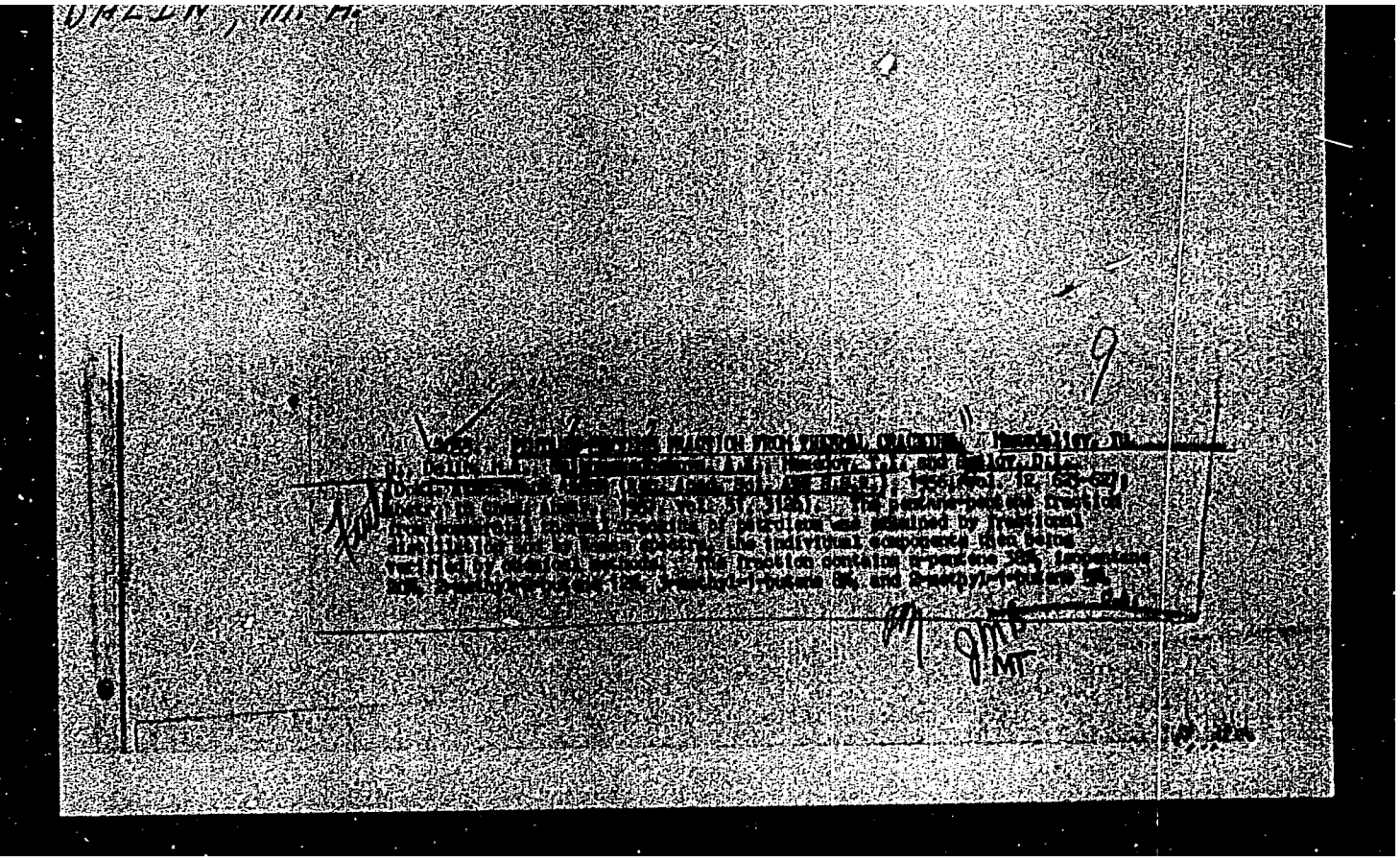
Orig Pub : Sb.: Khim. pererabotka neft. uglevodorodov. M., AN SSSR, 1956, 568-577

Abstract : Description of the technological system and of results of the experiments on direct hydration of C_2H_4 to C_2H_5OH (I), in an experimental industrial unit with a reactor of 0.5 m in diameter and 8 m high, using H_3PO_4 as a catalyst. During the experiments the following optimal conditions of

Card 1/2

DALIN, M.A., doktor tekhnicheskikh nauk.

State of the manufature of unsaturated gaseous hydrocarbons and the synthesis of ethyl alcohol by direct hydration of ethylene. Khim. nauka i prom. 1 no.3:259-272 '56. (MIRA 9:9)
(Ethylene) (Alcohol) (Petroleum products)



DALIN, M.A.; SHIKHMAMEDBEKOVA, A.Z.

Catalytic dehydrogenation of hydrocarbons for the preparation of butadiene and isoprene. Trudy Inst.khim.AN Azerb.SSR 15:84-98 '56. (MLRA 9:11)

(Butadiene) (Isoprene)

Dalin, M. A.

USSR /Chemical Technology. Chemical Products and Their Application

Treatment of natural gases and petroleum. Motor fuels. Lubricants.

Abs Jour: Referat Zhur - Khimiya, No 9, 1957, 31[illegible]

Author : Mamedaliyev Yu. G., Dalin M. A., Mamedov T. I.

Inst : Institute of Chemistry, Academy of Sciences Azerbaydzhan SSSR

Title : Catalytic Dehydrogenation of Isopentane Fraction

Orig Pub: Tr. in-ta khimii AN AzSSR, 1956, 15, 106-118

Abstract: See RZhKhim, 1956, 59259

Card 1/1

Dalin, Mark Aleksandrovich

DALIN, Mark Aleksandrovich; MARKOSOV, Petr Ivanovich; SHEINEROVA, Roza Isaakovna; PROKOV'YEVA, Tat'yana Vladimirovna; SHEMASTIKA, Ye.V. red.; SHPAK, Ye.G., tekhn.red.

[Alkylation of benzene by olefins] Alkilirovanie benzola olefinami. Moskva, Gos.nauchno-tekhn.izd-vo khim.lit-ry, 1957. 117 p.
(Olefins) (Alkylation) (Benzene) (MIRA 11:2)

Dalin, M.A.

MAMEDALIYEV, Yu.G.; DALIN, M.A.; SHIKHMAMEDBEKOVA, Z.A.

Dehydrogenation of isopentenes to isoprene under reduced pressure. Dokl. AN Azerb. SSR 13 no.9:961-965 '57. (MLRA 10:9)

1. Institut khimii.
(Pentene) (Isoprene) (Dehydrogenation)

DALIN, M.A.

MAMEDALIYEV, Yu.G.; DALIN, M.A.; SHIKHMAMEDBEKOVA, A.Z.

Analyzing the pentane-pentene fraction of catalytic cracking. Dokl. AN Azerb. SSR 13 no.11:1159-1164 '57. (MIRA 10:12)

1. Institut khimii AN AzerSSR.
(Petroleum--Analysis)

SOV/64-58-6-3/15

AUTHORS: Dalin, M. A., Burmistrova, R. S., Taniyants, K. D.

TITLE: The Pyrolysis of Light Distillate Oil (Piroliz gazovogo benzina) Study of Pyrolysis Under Semi-Industrial Conditions (Izucheniye piroliza v poluzavodskikh usloviyakh)

PERIODICAL: Khimicheskaya promyshlennost', 1958, Nr 6, pp 333-335 (USSR)

ABSTRACT: An analysis of the pyrolysis of liquefied gas (Tuymazinsk) for the production of a raw material for unsaturated compounds was carried out on a semi-technical scale. The gasoline consists mainly of a pentane-hexane fraction. A schematic drawing and description of the testing plant are given. The analysis of the gas obtained by pyrolysis was carried out in the apparatus TsIATIM-51 and VTI. The results obtained are given in a table and indicate, among other things, that a temperature increase does not only result in a higher yield of gas, but also in an increased concentration of ethylene. Optimum conditions stated are as follows: temperature of 220°, a contact time of one second, and an addition of steam to the extent of 20 per cent by weight. Under these

Card 1/2

conditions the yield of gas obtained by pyrolysis is 82 per cent by weight (of the raw material), the ethylene content being 31,8 per cent by volume, the content of propylene and ethane 7 and 4 per cent by volume, respectively. The yield of liquid carbon is 16 per cent by weight, 45,6 per cent of which boil at 78-112°. If the gas obtained has a composition that is similar to that of the gases obtained by the pyrolysis of the ethane and propane-propyl fractions, it can be conducted to the separating unit along with the other gases, and it is not necessary to change the production units for the individual olefins. There are 4 figures and 3 tables.

DALIN, M.A.; SHENDEROVA, R.I.; VEINEYEVA, L.Ya.; PIS'MAN, I.I.

Polymerization of ethylene on a chromium catalyst. Dokl. AN Azerb. SSR 14 no.12:991-996 '58. (MIRA 12:1)

1.Predstavleno akademikom AN Azerb. SSR M.F. Nagiyevym.
(Ethylene) (Polymerization)

Dalin, M. A.

PHASE I BOOK EXPLOITATION SOV/4054

Akademiya nauk SSSR. Institut nauchnoy informatsii

Khimicheskaya promyshlennost' SSSR (The Chemical Industry of the USSR) Moscow, Goskhimizdat, 1959. 457 p. Errata slip inserted. 4,100 copies printed.

Sponsoring Agency: USSR. Gosudarstvennyy nauchno-tekhnicheskiy komitet.

Ed.: R. S. Romm; Tech. Ed.: P. V. Pogudkin; Editorial Board: A. P. Vinogradov, S. I. Vol'fkovich, N. M. Zhavoronkov, M. I. Ivanov, V. S. Kiselev, I. A. Lunacharskaya (Scientific Secretary), S. S. Medvedev, B. D. Mel'nik, A. N. Planovskiy, A. Ya. Ryabenko (Chief Ed.), and A. V. Topchiyev.

PURPOSE: This book is intended for the personnel of the chemical industry. It will be of interest to the general reader interested in the development and structure of the Soviet chemical industry.

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The Chemical Industry of the USSR SOV/4054

COVERAGE: This book contains 18 articles on various aspects of the Soviet chemical industry. Among the developments in the production of raw materials for the manufacture of chemical products discussed are: 1) the use of raw materials synthesized from natural gas and petroleum to replace food products in the production of synthetic rubber, alcohol, detergents, etc.; 2) the production of acetylene from natural and petroleum gases for the synthesis of vinyl chloride, acrilonitrile, chloroprene, trichloroprene, 1, 4-butadiene, and other organic substances, based on methods developed by M. G. Kucherov, A.Ye. Favorskiy and others; 3) the production of acetylene from saturated hydrocarbons by cracking methane (and its homologs) at 1450° in an electric arc between two special electrodes in a gas reactor, by pyrolysis (thermal oxidation) of methane in an improved furnace designed by B. S. Grinenko, by high-temperature pyrolysis of propane and butane in tubular furnaces, or by other methods of producing acetylene for the production of synthetic rubber, ethyl alcohol, and other organic substances; 4) the synthesis of halogen derivatives of aliphatic hydrocarbons for the production of solvents, refrigerants, pharmaceutical products, etc., and 5) the production of rubber accelerators from nitrogen-containing aliphatic hydrocarbons. The history of plastics production in the Soviet Union is reviewed, and names, locations, and products of plants as well as the names of outstanding personalities in the field are given. The technical level and prospects of further development of different branches of the plastics industries are also discussed

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along with methods of manufacturing plastic articles. A special apparatus designed by Ye. M. Mogilevskiy and designated "VA" which permits preparation of viscose solution in one operation is discussed. It is being used to replace the complex, conventional equipment with great savings in space. General trends in the technology of synthetic fiber production are also discussed. A historical review of synthetic rubber production and the achievements of outstanding Soviet scientists in this field are given as well as names, locations and products of synthetic rubber plants. Rubber production and the manufacture of rubber goods are similarly reviewed. Statistical data and outstanding personalities in the development of the aniline dyes, paints and lacquers, mineral fertilizers, insecticides and fungicides, sulfuric acid, soda, mineral salts, radioactive and stable isotopes, and chemical reagents industries are given. Catalytic processes and automation and automatic devices used in the chemical industry are also discussed. Thirty-eight photographs included in the book show outside and interior views of some Soviet chemical industry plants, as well as their manufacturing, material-handling and laboratory equipment. Numerous personalities and facilities are identified in the body of the text. References accompany individual articles.

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SOV/64-59-5-4/28

5(1)

AUTHORS: Dalin, M. A., Mamedova, V. M., Kasparov, A. S.

TITLE: Catalytic Vapor-Phase Hydration of Propylene Into Isopropanol

PERIODICAL: Khimicheskaya promyshlennost', 1959, Nr 5, pp 385-387 (USSR)

ABSTRACT: The optimum conditions for vapor-phase hydration of propylene (I) into isopropanol (II) with the aid of phosphoric acid catalysts were investigated on a pilot plant together with the IKhF AS USSR (Ref 4) and subsequently on an experimental plant (capacity; 1 t of (II)/24 h). The kinetics of this reaction was already investigated by N. M. Chirkov and V. I. Tsvetkova (Ref 3). The scheme of the pilot plant used here is given in figure 1 from which it may be seen that the fraction of propylene (with a minimum of 80% by volume (I)) is mixed with the vapor condensate in the ratio (0.7-1) : 1 and reaches the reactor at 170-180°. After condensation of II) the mixture again passes through the plant. The condensate contains 15-18% by weight (II). Coarse-pored silica gel (poro ity 65%) saturated with 50% orthophosphoric acid (III)(first quality according to GOST 10114-39) was used as a catalyst (C). The bulk weight of the (C) amounted to 0.72 kg/l,

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the (III)-content to 41.5% by weight. The equilibrium constant of the reaction was computed according to Vvedenskiy's equation (Ref 6). The following optimum conditions were found: Temperature 170-180°, pressure 9-11 atm, volume velocity of (I) 500-650 hours^{-1}, molar ratio (water: (I) = (0.7-1) : 1, concentration of (I) in gas 80-90%. Under optimum conditions the conversion of (I) to (II) amounts to 5-6% for one passage with an efficiency of 96%. There are 2 figures and 6 references, 5 of which are Soviet.

DALIN, M. A.

SOV/64-59-5-25/28

5(1)

AUTHOR: Zlotin, L.

TITLE: Conference of Workers of the Synthetic Ethyl Alcohol Industry Branch

PERIODICAL: Khimicheskaya promyshlennost', 1959, Nr 5, p 459 (USSR)

ABSTRACT: The regular branch conference took place this year in Novokuybyshevsk from July 14th to 17th, to discuss problems of the industry of synthetic ethanol. The conference was convened by Upravleniye komiteta Soveta Ministrov SSSR po khimii (Administration of the Committee for Chemistry of the Council of Ministers of the USSR) and by the Kuybyshev sovnarkhoz. Delegates from all plants of synthetic alcohol, of the Gosplan program SSSR and of the Gosplan program RSFSR and of the Goskhimkomitet as well as leading workers of the Novokuybyshevsk and of a number of research institutes (Fiziko-khimicheskiy institut imeni Karpova (Institute of Physical and Chemical Sciences), VNIIneftekhim, NIISS and others), of the Kuybyshevskiy industrial'nyy institut (Kuybyshev Institute of Industry), of the Planning Institutes (Giprokauchuk, Giprogaztopprom), of the petroleum refineries, etc. participated in this conference, which

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was attended by 300 persons. It was opened by Comrade I. M. Burov, Secretary of the Kuybyshevskiy oblastnoy komitet KPSS (Kuybyshev oblast' Committee of the KPSS). Lectures were held in the plenary sessions concerning the tasks of the industry of synthetic ethanol (L. I. Zlotin (Goskhimkomitet)), and reports were made on the work of the plants during the year 1958 and during the first quarter of 1959 (I. A. Valushko - Kuybyshevskiy zavod sinteticheskogo spirta (Kuybyshev Plant of Synthetic Alcohol)), A. P. Litvin - Groznenskiy khimicheskiy zavod (Groznyy Chemical Plant), I. A. Anisimov - Saratovskiy zavod sinteticheskogo spirta (Saratov Plant of Synthetic Alcohol), A. V. Likhachev - Orskiy zavod sinteticheskogo spirta (Orsk Plant of Synthetic Alcohol), M. M. Kyabova - Ufimskiy zavod sinteticheskogo spirta (Ufa Plant of Synthetic Alcohol), M. Ya. Klimenko - NIISS). Lectures were also held on the following subjects: On the decrease of the prime cost of alcohol (Ye. P. Shchukin - NIISS), on the optimum conditions of ethylene hydration (Corresponding Member of AS USSR [illegible]), on foreign investigations concerning the production of synthetic alcohol and their analysis in the USSR (Doctor of Technical Sciences,

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M. A. Dalin), on the utilization of by-products of the production of synthetic ethanol (Director of [illegible] S. D. [illegible] (Central Plant Laboratory of the Orsk Plant S. D. [illegible])), on further automation of alcohol production (Y. V. Aranovich - Giprokauchuk), on [illegible] Neyman - NIISS), on production of ethylene [illegible] Giprokauchuk). During the conference [illegible] the following problems: Preparing of raw material, ethylene production, alcohol production, the economic, automatic and production control. 30 lectures were held. It was decided, among others, to disregard the building of 2-3 new plants and the workers were appealed to accomplish the new 7-Year Plan in 5 years.

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APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000509530005-4"

DALIN, M.A.; BUKIYAT-ZADE, A.A.; PIS'MAN, I.I.; BAKESHI-ZADE, A.A.

Copolymerization of ethylene with propylene. Azerb. khim.zhur. no.4:21-26 '59. (MIRA 14:9)

(Ethylene) (Propene)

MAMEDALIYEV, Yu.G.; DALIN, M.A.; SHIKHMAMEDBEKOVA, A.Z.; MAMEDOV, T.I.

Dehydrogenation of isopentane and isopentenes to form isoprene.
Trudy Inst.khim.AN Azerb.SSR 17:123-130 '59. (MIRA 13:4)

1. Institut khimii AN AzerSSR.

(Butane) (Butene) (Isoprene)

S/595/60/000/000/007/014
E196/E435

AUTHORS: Mamedaliyev, Yu.G., Dalin, M.A., Shikhmamedbekova, A.Z.

TITLE: Some results of research on dehydrogenation of isopentenes to isoprene

SOURCE: Vsesoyuznoye soveshchaniye po khimicheskoy pererabotke neftyanykh uglevodorodov v poluprodukty dlya sinteza volokon i plasticheskikh mass. Baku, 1957. Baku, Izd-vo AN Azerb.SSR, 1960, 219-225

TEXT: In their search for an economical raw material for the production of monomers of isoprene rubber, considered the best synthetic rubber now in production, the authors carried out investigations of C_5 fractions contained in thermal and catalytically-cracked gasolines. This was done for the purpose of determining the quantitative relationship between the various pentenes and isopentane of these fractions. The presence and quantity of these isomers was determined chemically and by spectrum analysis; the results are given in Table 2. The dehydrogenation of isopentenes to isoprene was carried out in the presence of industrial catalyst K 12 and K 16, normally used for

Card 1/

Some results of research .

conversion of butenes to butadiene. As the dehydrogenation is favoured by the reduction in partial pressures of the reactants, the experiments were carried out either in partial vacuum (180 mm Hg) or with 4 to 10% of steam as diluent at temperatures ranging from 530 to 630°C with velocities of 1.0 to 2.0 l/l.h. The catalyst was reactivated by passing air during 3 to 4 h at temperatures not exceeding that of the experiment. Best results were obtained with catalyst K-16 at 540°C with velocity 2.0 l/l.h giving isoprene in 25 to 26% yield per pass or 82 to 84% on the decomposed isopentenes. An important conclusion was that the dehydrogenation rates of the three isomeric isopentenes found in the C5 fraction from petroleum cracking are similar. This means that a mixture of isopentenes need not be separated into individual components before dehydrogenation to isoprene. B.S.Korotkevich, A.Z.Dorogochinskiy and A.A.Bashilov are mentioned in the article. There are 2 figures, 6 tables and 8 references: 7 Soviet-bloc and 1 non-Soviet-bloc. The reference to an English language publication reads as follows: Brown R.A., Mitchell F.W., Brown R.A., and others, Industr. Engng. Chem. 1952, 44, p. 1.

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E196/E435

Some results of research

Table

Hydrocarbon	In C_5 fraction from thermal cracking % W/W	In C_5 fraction from catalytic cracking % W/W
Isopentane	20	48
n-pentane	18	23
pentene-1	12	3
pentene-2 fract	5	5
3-methylbutene-1	8	3
2-methylbutene-1	5	3
2-methylbutene-2	12	14

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S/595/60/000/000/008/014
E134/E435

AUTHORS: Mamedaliyev, Yu.G., Dalin, M.A., Mamedov, T.I.

TITLE: Some results of work on the catalytic dehydrogenation of isopentane fractions

SOURCE: Vsesoyuznoye soveshchaniye po khimicheskoy pererabotke neftyanykh uglevodorodov v poluprodukty dlya sinteza volokon i plasticheskikh mass. Baku, 1957. Baku, Izd-vo AN Azerb. SSR, 1960. 227-232

TEXT: The paper deals with the catalytic dehydrogenation of isopentane to isoprene, the object of the work being an economic process for the manufacture of isoprene from the pentane petroleum fraction, leading ultimately to the production of isoprene rubber. A fraction containing 94 to 96% isopentane was passed over the aluminium chromium catalysts K3, K5 and K9, which are used for the dehydrogenation of propane and butane. The work was carried out in a single passage of the isopentane over the catalyst in the continuous equipment described by the authors elsewhere (Ref.7: DAN Azerb SSSR. 1955, 11, no.1, 13; Ref.8: DAN Azerb.SSSR. 1956, 12, no.1, 3; Ref.9: Tr. In-ta khimii AN Azerb.SSR, 1956, 15, 106). The effect of temperature and flow rate on yield and

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S/595/60/000/000/008/014
E134/E435

Some results of work on ...

product composition was studied with catalyst K3 in the range of 490 to 530°C and space velocity of 0.7 to 1.5 per hour. The product contained 3-methyl-1-butene, 2-methyl-1-butene and 2-methyl-2-butene in the ratios of 1.3:4.6:11.0. Some dienes were formed. The work with K5 was concentrated on 520°C and a space velocity of 1 per hour and gave ratios of 1.0:3.6:10.0 for the above methyl butenes. A temperature range of 520 to 570°C and a space velocity of 0.5 to 3 per hour were employed for K9. effects of temperature and flow rate on yield and composition was investigated. The liquid product was about 90% of the isopentane feed. The yield of unsaturated hydrocarbon increased from 16 to 40% with rising temperature. 2-methyl-2-butene was found to be the main isopentene formed (up to 70%). This may be due to isomerization of other isopentenes by the alumina catalyst carrier in the high temperature zone. The effect of diluents in the presence of K5 was also investigated nitrogen carbon dioxide hydrogen and a hydrogen/methane mixture being employed. Only results with hydrogen are given and higher dilution ratios were found to increase the amount of unsaturated product. Up to 75%

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of unsaturated hydrocarbons were obtained but no isopentene analysis was carried out. Best results were obtained with isopentane:hydrogen ratios of 1:3 - 4; in these circumstances about 8% of diene on weight of isopentane feed were obtained. The authors consider the catalysts suitable for the dehydrogenation of isopentane. N.I.Shuykin is mentioned in the article for his contributions in this field. There are 4 figures and 31 references: 15 Soviet-bloc and 16 non-Soviet-bloc. The four most recent references to English language publications read as follows: Ref.17: Britton E.C., Dietzler A.I., Nodding C.R. Industr. Engng. chem., 1951, 43, no.12. 2871. Ref.18: Blue et al Industr. Engng. chem., 1952, 44, no.11, 2710; Ref.20: Eichens, Selwood. Journ. Am. chem. Soc., 1947, 69, 1950, 2698, 1948, 70, 2271; Ref.26: Kearby K. Industr. Engng. chem., 1950, 42, no.2. 296.

SEMENOV, N.N., red.; MAMEDALIYEV, Yu.G., red.; DALIN, M.A., red.; NAGIYEV, M.F., red.; ALIYEV, V.S., red.; KRANTSEL', B.A., red.; SHUYKIN, N.I., red.

[Proceedings of the All-Union Conference on the Chemical Processing of Petroleum Hydrocarbons into Intermediate Products for the Synthesis of Fibers and Plastics] Trudy Vsesoiuznogo soveshchaniia po khimicheskoi pererabotke neftianykh uglevodorodov v poluprodukty dlia sinteza volokon i plasticheskikh mass. 1957. Baku, Izd-vo Akad. nauk Azerbaidzhanskoi SSR, 1960. 313 p. (MIRA 14:7)

1. Vsesoyuznoye soveshchaniye po khimicheskoy pererabotke neftyanykh uglevodorodov v poluprodukty dlya sinteza volokon i plasticheskikh mass. 1957.

(Textile fibers, Synthetic) (Plastics)

DALIN, M.A.; BAKHSHI-ZADE, A.A.; PIL'MAN, I.I.; BUNIYAT-ZADE, A.A.

Some properties of the copolymer of ethylene with propylene.
Azerb.khim.zhur. no.1:25-29 '60. (MIRA 14:9)
(Ethylene) (Propene)

DALIN, M.A.; SHENDEROVA, R.I.

Purification of ethyl alcohol obtained by direct hydration of ethylene. Khim.prom. no.4:275-277 Je '60. (MIRA 13:8)

(Ethyl alcohol) (Ethylene)

53300

29136
S/081/61/000/017/105/166
B101/B102

AUTHORS: Dalin, M. A., Spivak, R. Ye., Burmistrov, Ye. F.

TITLE: Production of para-tertiary butyl phenol on the basis of the commercial C_4 fraction of butane dehydrogenation products

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 17, 1961, 361, abstract 17Л145 (Azerb. khim. zh., no. 6, 1960, 21 - 25)

TEXT: The possibility of achieving a complete extraction of isobutylene (I) (at a content of 3 - 4%) from the C_4 fraction of the dehydrogenation process by means of phenol (II) is shown. Qualitative p-tert-butyl phenol is thus obtained, and part of highly concentrated I is separated. The optimum conditions for the alkylation of II with the C_4 fraction were found to be a temperature of 100°C, 1% by weight of 100% H_2SO_4 as a catalyst, a velocity of the fraction vapor of 0.25 m/sec in the free column cross section, and saturation of the alkylate 1 mole of I per mole of II. A

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Production of para-tertiary...

partial dealkylation takes place if temperature is increased to 205°C and 98 - 99.5% of I is separated. Divinyl, which is present in the fraction in an amount of 3 - 4%, is not affected if the process takes place under optimum conditions. [Abstracter's note: Complete translation]

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DALIN, M.A.; KULIYEV, A.M.; NURIYEVA, Z.D.

The Azerbaijan chemical industry during the last 40 years. Azerb. neft. khoz. 39:26-27 Ap '60. (MIRA 13:11)
(Azerbaijan--Petroleum chemicals)

DALIN, M.A.; BURMISTROVA, R.S.

Pyrolysis of Karadag gas condensate. Azerb. neft. khoz. 39 no.3(405):41-42 Mr '60. (MIRA 14:9)
(Karadag region--Gas, Natural)

DALIN, M.A., akademik; VEDENKYEVA, L.Ya.; SHENDEROVA, R.I.

Polymerization of ethylene on a chromium oxide catalyst.
Dokl.AN SSSR 133 no.1:182-185 Jl '60. (MIRA 13:7)

1. Akademiya nauk AzerbSSR (for Dalin).
(Ethylene) (Polymerization)

83133
S/020/60/133/005/010/019
B016/B060

53931

AUTHORS: Dalin, M. A., Academician AS AzerbSSR, Pis'man, I. I., Bakhshi-Zade, A. A., Buniyat-Zade, A. A.

TITLE: Copolymerization of Ethylene With Propylene and α-Butylene on Chromium Oxide Catalyst

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 133, No. 5, pp. 1084-1085

TEXT: The authors wanted to carry out the synthesis mentioned in the title and to study more thoroughly the properties of the substances mentioned. The first results of their investigations are supplied in the present paper. For their experiments the authors made use of Vishnevskiy's mixer (Ref. 3). The solvent used was extraction benzine purified by activated chromium catalyst. The catalyst was prepared by the well-known method of Ref. 4. The ethylene- and propylene fractions of pyrogas were used as monomers. The butylenes were produced by dehydration of n-butyl alcohol upon aluminum oxide of the type A-1 (A-1) at 360°C. The mixture

Copolymerization of Ethylene With Propylene and α-Butylene on Chromium Oxide Catalyst

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B016/B060

contained 2 - 3% of isobutylene and 97 - 98% of normal butylenes. The butylene fraction was dehydrated on fine-porous silica gel and calcium hydride during production. The gas mixtures were prepared in carefully dried metal balloons. After the pressure drop had stopped the autoclave was allowed to cool and pressure was reduced. The copolymer taken from the autoclave was heated together with the catalyst in a vessel with ligroin, and was subsequently filtered off the catalyst on a paper filter. The polymer was then washed with ethanol, dried, and analyzed. Table 1 shows the properties of polyethylene, which constitutes a copolymer of ethylene with propylene. It contains (in % by weight), propylene 12.6, ethylene 87.4, and ethylene-α-butylene copolymer (7% of butylene and 93% of ethylene). As can be seen from Table 1, the copolymers of ethylene with propylene and with α-butylene differ from polyethylene with respect to melting temperatures, solubility in n-heptane, and specific elongation in cold drawing. The greater flexibility is striking but so is also a lesser strength of the ethylene-propylene copolymer as compared with polyethylene. The ethylene-α-butylene copolymer comes near

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Copolymerization of Ethylene With Propylene and α-Butylene on Chromium Oxide Catalyst

S/020/60/133/005/010/019
B016/B060

polyethylene as to strength but surpasses it as to elasticity. There are 1 table and 5 references: 2 Soviet, 1 US, 1 Belgian, and 1 Italian.

SUBMITTED: February 5, 1960

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DALIN, Mark Aleksandrovich; VASINA, T.V., red.; ZAZUL'SKAYA, V.F., tekhn. red.

[Petrochemical syntheses] Neftekhimicheskie sintezy. Moskva, Gos. nauchno-tekhn. izd-vo khim. lit-ry, 1961. 97 p. (MIRA 14:8)
(Petroleum chemicals)

S/081/62/000/004/086/087
B102/B101

AUTHORS: Dalin, M. A., Shenderova, R. I., Pis'man, I. I., Bakhshi-zade, A. A., Vedeneyeva, L. Ya., Buniyat-zade, A. A.

TITLE: Synthesis of polyethylene and of copolymers of ethylene with propylene and α-butylene on an chromium oxide catalyst

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 4, 1962, 669, abstract 4R128 (Azerb. khim. zh., no. 1, 1961, 17 - 22)

TEXT: Purification of ethylene (I) was carried out on a pilot-plant scale allowing for an increase in efficiency of the oxide-chromium oxide catalyst (COC) up to 176 - 250 g/g when I is polymerized in extraction benzine purified with sulfuric-acid, or in cyclohexane (120 - 130°C, 3 - 5 hrs, 45 at, COC concentration 0.13 - 0.25%). When ethylene is co-polymerized with propylene (II) (6.7 - 15% by volume) (110 - 120°C, 40 at) in benzine in the presence of an CaC_2 activator (20% of the catalyst's weight), the efficiency of the COC is reduced to 68 - 135 g/g owing to the lower reactivity of II and to its incomplete purification. The copolymer

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S/081/62/000/004/086/087
B102/B101

Synthesis of polyethylene and...

(CP) differs from the polymer of I by its lower crystallinity. The content of crystalline phase decreases with increasing polymerization temperature and increases with pressure. Polymer, melting point in °C, relative elongation in %, rupture strength in kg/cm^2, and solubility in n-heptane are enumerated: I, 128 - 130, 310 - 600, 260 - 300, 10 - 15; CP of I with II, 122 - 126, 720 - 1020, 170 - 220, 60 - 70; CP of I with α-butylene (2.5 - 4.5 vol%), 125 - 127, 500 - 800, 250 - 300, 30 - 40. [Abstracter's note: Complete translation.]

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DALIN, M.A.; PIS'MAN, I.I.; BAKHSHI-ZADE, A.A.; BUNIYAT-ZADE, A.A.; POKOTILOVA, S.D.

Copolymerization of ethylene with α-olefins on a chromium oxide catalyst. Azerb.khim.zhur. no.2:9-16 '61. (MIRA 14:8)
(Ethylene) (Olefins) (Polymerization)

S/064/61/000/003/002/009
B101/B203

AUTHORS: Dalin, M. A., Spivak, R. Ye., Burmistrov, Ye. F., Vyaz'mitinova, L. M.

TITLE: Joint production of isoamylenes and para-tert-amyl phenol

PERIODICAL: Khimicheskaya promyshlennost', no. 3, 1961, 21-24

TEXT: Isoamylenes are used as raw material for the production of isoprene. They are profusely available in the cracking products of petroleum. Their fractional separation is, however, made difficult by the adjacent boiling points of the individual hydrocarbons with 5 C atoms. Therefore, the authors studied the selective production of isoamylenes by alkylation of phenol and subsequent decomposition of the phenol amyl ethers into phenol and olefins. They used as initial substances: 1) pentane amylene fraction with 15-20% isoamylenes, 30-35% n-amylene; 2) phenol with the melting point at 41°C. 95.6% sulfuric acid was used as a catalyst. The first experiments were made with an electrically heated glass column. Phenol was filled into the column, and the required H_2SO_4 amount was added under stirring. After heating, the vapor of the pentane amylene fraction

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entered the column from below through a Schott filter. The reaction products were condensed. The dealkylation was performed in a rectifying column with filling from short glass tubes. Liberation of isoamylenes started at 160°C, and was finished at 205°C. However, p-tert-amyl phenol also formed as a by-product. Resin was left behind as a distillation residue. The initial fraction and the resulting isoamylenes were analyzed in a nitrogen flow by absorption in 64% H_2SO_4 (isoamylenes) and 84% H_2SO_4 (n-amylene) in a ВТИ(VTI) gas analyzer. The authors studied the effect of the temperature at which the phenol was alkylated on the yield in isoamylenes (Fig. 3). At temperatures above 80°C, the amount of amyl phenol increased. 1% of sulfuric acid referred to phenol was found to be the optimum admixture. Larger admixtures increased the amount of resin residue. Fig. 6 shows the yield of isoamylenes as a function of the molar ratio isoamylenes : phenol. If 1:1 is exceeded, the formation of amyl phenol increases (Fig. 7). The optimum established was a pressure of 2 atm at which the reaction products were better condensed than at atmospheric pressure. Still higher pressure may lead to condensation of the initial fraction in the alkylation vessel. As the laboratory apparatus

Joint production of isoamylenes ...

only permitted a low vapor velocity, tests were made with the pilot apparatus shown in Fig. 8 which permitted a vapor velocity of up to 1 m/sec with strongly reduced resinification. Table 1 shows the results. As amyl phenol was formed besides phenol ethers which decomposed again on heating, the authors studied at what ratio phenol : amyl phenol (designated initial molar saturation) the optimum yield in isoamylenes was obtained. Fig. 9 shows the result. Experiments made under the supervision of M. I. Arkhipov at the Ivanovskiy khimiko-tekhnologicheskiy institut (Ivanovo Chemotechnical Institute) showed that the resulting amyl phenol could be used for the production of phenol formaldehyde resins. Papers by V. N. Ipat'yev, I. P. Tsukervanik, and Z. N. Nazarova, V. N. Isagulyants, and P. P. Bagryantseva are mentioned. There are 9 figures, 2 tables, and 8 references: 3 Soviet-bloc and 5 non-Soviet-bloc.

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Joint production of isoamylenes ...

Legend to Fig. 3: a) temperature; b) yield of isoamylenes in % of the absorbed vapor;

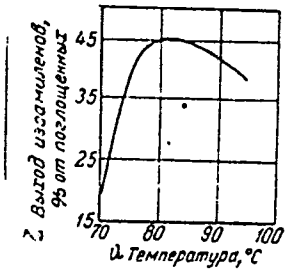

Fig.3

Fig. 3

Legend to Fig. 6: a) molar ratio isoamylenes : phenol; b) yield of isoamylenes in % of the absorbed vapor;

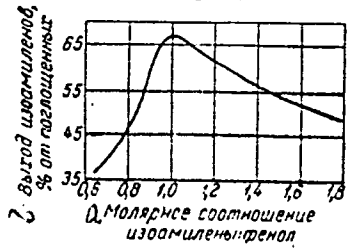

Fig. 6

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Fig. 6

Joint production of isoamylenes ...

Legend to Fig. 7: a) molar ratio isoamylenes : phenol; b) phenol and amyl phenol, % by weight

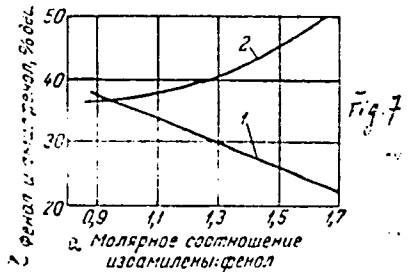

Fig. 7

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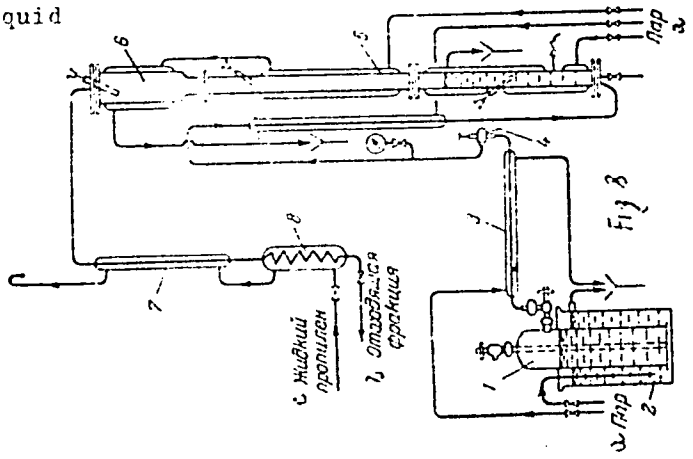
Joint production of isoamylenes ...

Legend to Fig. 8: 1) cylinder, 2) bath, 3) heater, 4) throttle valve, 5) alkylating column, 6) water cooler, 7) cooler for propylene, a) steam, b) initial fraction not reacted, c) liquid propylene



Card 6/8

Joint production of isoamylenes ...

Legend to Table 1: 1) amount of reacted fraction, g, 2) steam velocity in the free cross section of the column, 3) content of isoamylenes (% by volume) in the fractions, a) initial, b) residual fraction, 4) yield of isoamylenes in % of the adsorbed vapor, 5) amount (%) of isoamylenes dealkylated in the temperature range:, c) up to, 6) concentration (%) of isoamylenes dealkylated in the temperature range:

1 Пропущено фракции, г	2 Скорость паров в свободном сечении колонки м/сек	3 Содержание изоамиленов (% об.) во фракциях: а исходной	3 Содержание изоамиленов (% об.) во фракциях: б отходящей	4 Выход изоамиленов % от поглощенных	5 Количество (%) изоамиленов, дealкилированных в интервале температур: с до 160°	5 Количество (%) изоамиленов, дealкилированных в интервале температур: 160—205°	6 Концентрация (%) изоамиленов, дealкилированных в интервале температур: с до 160°	6 Концентрация (%) изоамиленов, дealкилированных в интервале температур: 160—205°
3110	0,05	10,0	5,2	45,2	61,2	35,8	50,8	92,1
6290	0,10	18,0	8,2	51,1	58,4	41,9	54,2	93,1
3920	0,23	18,0	6,4	62,3	40,5	59,5	64,2	94,6
5520	0,29	18,0	6,3	62,8	38,0	62,0	61,3	90,0
4670	0,55	9,5	0,9	88,1	28,0	72,0	68,3	91,0
6200	0,87	18,7	2,4	85,2	13,0	87,0	74,5	95,7
1970	0,90	12,5	1,3	89,0	5,0	95,0	83,2	98,1

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Joint production of isoamylenes ...

Legend to Fig. 9: a) initial molar saturation, b) yield of isoamylenes in % of the absorbed vapor

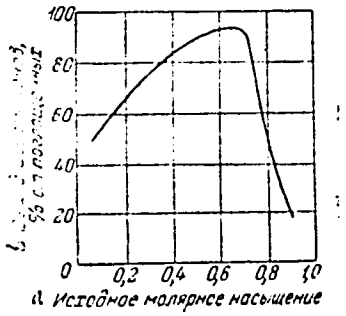

Fig. 9

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DALIN, M.A.; SPIVAK, R.Ye., BURMISTROV, Ye.F.; VYAZ'MITINOVA, L.M.

Combined production of iso-amylenes and para-tert-amylphenol. Khim.prom. no.3:169-172 Mr '61. (MIRA 14:3)
(Butene) (Phenol)

PIS'MAN, I.I.; DALIN, M.A.; MAMEDOVA, E.S.; KAS'YANOV, V.V.

Production of α-butylene by the dehydration of n.butyl alcohol on A-1 aluminum oxide. Report No.1. Azerb.khim.zhur. no.6:67-72 '61. (MIRA 15:5)

(Butene) (Butyl alcohol)

DALIN, M.A.

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PHASE I BOOK EXPLOITATION SOV/6195

Nauchnaya konferentsiya institutov khimii Akademiy nauk Azerbaydshanskoy, Armyanskoy i Gruzinskoy SSR. Yerevan, 1957.

Materialy nauchnoy konferentsii institutov khimii Akademiy nauk Azerbaydzhanskoy, Armyanskoy i Gruzinskoy SSR (Materials of the Scientific Conference of the Chemical Institutes of the Academies of Sciences of the Azerbaydzhan, Armenian, and Georgian SSR) Yerevan, Izd-vo AN Armyanskoy SSR, 1962. 396 p. 1100 copies printed.

Sponsoring Agency: Akademiya nauk Armyanskoy SSR. Institut organicheskoy khimii.

Resp. Ed.: L. Ye. Ter-Minasyan; Ed. of Publishing House: A. G. Slkuni; Tech. Ed.: G. S. Sarkisyan.

PURPOSE: This book is intended for chemists and chemical engineers, and may be useful to graduate students engaged in chemical research.

COVERAGE: The book contains the results of research in physical, inorganic, organic, and analytical chemistry, and in chemical engineering, presented at the Scientific Conference held in Yerevan, 20 through 23 November 1957. Three reports of particular interest are reviewed below. No personalities are mentioned. References accompany individual articles.

silicate mineral) as a catalyst carrier have been determined. The study was of interest because this petroleum fraction is used as diesel and jet fuel and is degraded for those purposes by the presence of n-alkanes. Optimum conversion conditions were obtained with hydrogenation under 30 atm. H in a flow reactor at 450°C with a hydrogen/hydrocarbon molar ratio of 3: 1 and a hydrocarbon space velocity of 0.5 hr^{-1}. Catalysis with 0.5% of Pt or Pd on Al_2O_3 or "gumbrin" caused an extensive conversion of normal undecane and dodecane and improved the motor properties of hydrogenation-cracking products by increasing their heating efficiency by 80 kcal/kg and reducing their pour points by 16 to 48.5°C.

DALIN, M.A.

Development of methods of production of olefin hydrocarbons.

Report presented at the 12th Conference on high molecular-weight compound devoted to monomers, Baku, 3-7 April 62

PECHURO, P.S., MERKU'YEVA, A.P., GRISHI A, G.A., BURMISTROVA, E.F.
DALIN, M.A.

Dissociation of fluid petroleum products in an electric discharge.

Report presented at the 12th Conference on high molecular weight compounds, devoted to monomers, Baku, 3-7 April 62

S/064/62/000/002/001/008
B105/B101

AUTHORS: Dalin, M. A., Guseynova, Z. D., Savel'yev, Yu. V., Taniyants, K. D., Burmistrova, R. S., Belen'kaya, Ye. L.

TITLE: Production of high-purity ethylene

PERIODICAL: Khimicheskaya promyshlennost', no. 2, 1962, 1 - 3

TEXT: Special purification methods of pyrogas for the production of high-purity ethylene are described. The study was conducted in an experimental plant with a productivity of 800 Nm^3/h as follows: (1) Purification of the gas from sulfur compounds and carbon dioxide by means of 11.6% NaOH. The pyrogas is previously cooled to 15 - 18°C to eliminate polymerizable hydrocarbons, and purification is performed at a watering density of 7 $m^3/m^2 \cdot h$, a linear pyrogas velocity of 0.04 m/s, and a temperature of ~50°C. (2) Dehydration of the gas in two stages: from an initial pyrogas moisture of 225 mg/Nm^3 to 20 mg/Nm^3, as well as from 20 to 10 mg/Nm^3. Silica gel of the following specification was tested: volume weight 0.85 g/cm^3; specific pore volume 0.320 cm^3/g; specific surface 537 m^2/g; average pore radius 11.8 Å. Dehydration of air and

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Production of high-purity...

ethylene was performed under laboratory conditions by means of molecular sieve of the NaA type produced at the GrozNII, the Gor'kovskaya opytnaya baza VNIINP (Gor'kiy Experimental Base VNIINP), and the Institut fizicheskoy khimii AN USSR (Institute of Physical Chemistry AS UkrSSR). The volume weight of the molecular sieve varies between 0.45 and 0.7 g/cm^3. (3) The purification of the ethylene-ethane fraction from acetylene may be realized by selective hydrogenation in the presence of catalysts, or (for more than 0.5% C_2H_2) by absorption with organic solvents. An industrial nickel-chrome catalyst was tested in an experimental plant. The ethylene-ethane fraction with a content of 0.025 to 0.1% acetylene was hydrogenated by the methane-hydrogen fraction of the pyrogas at 150 - 190°C, 23 - 25 atm, 4000 - 6000 h^{-1} volume velocity, and a hydrogen concentration of 25 - 30% in the methane-hydrogen fraction. (4) Methane removal of the ethylene-ethane fraction by fractional distillation at -23 to - 32°C. The methane and carbon monoxide content in ethylene after methane removal was determined by the xT-2M (KhT-2M) chromatograph. Activated carbon of the type AP-3 (AR-3) was used as adsorbent. There are 4 figures, 2 tables, and 7 references: 1 Soviet and 6 non-Soviet. The four most recent references to English-language

Card 2/3

publications read as follows: W. H. Stanton, Petr. Refiner no. 5, 1959, 177; R. E. Reitmeier, H. W. Fleming, Chem. Eng. Progress 54, no. 12, 1958, 48. U. S. Catalysts and Chem Inc., Louisville, Kentucky, 1958.

Card 3/3

PIS'MAN, I.I.; DALIN, M.A.; KAS'YANOV, V.V.; MAMEDOVA, E.S.

Preparation of α -butylene by dehydration of n-butyl alcohol on aluminum oxide A-1. Azerb. khim. zhur. no.3:49-58 '62. (MIRA 16:12)

DALIN, M.A.; CHERNYSHEVA, T.I.

The 12th Conference on Macromolecular Compounds. Khim.prom.
no.5:384-385 My '62. (MIRA 15:7)
(Macromolecular compounds--Congresses)

S/204/62/002/003/002/002
I032/I232

AUTHORS: Dalin, M. A. and Chernysheva, T. I.

TITLE: 12th Conference on high molecular-weight compounds, devoted to monomers

PERIODICAL: Neftekhimiya, v. 2, no. 3, 1962, 415–419

TEXT: The conference was organized by the Otdeleniye Khimicheskikh nauk AN SSSR (Department of Chemical Sciences AS USSR), Akademiya nauk Azerbaydzhanskoy SSR (Academy of Sciences, Azerbaidjan SSR), Gosudarstvenny komitet Sovieta Ministrov SSSR po khimii (State Committee for Chemistry of the Council of Ministers of the USSR) and Soviet narodnogo khosyaystva Azerbaydzhanskoy SSR (National Economic Council of Azerbaidjan SSR). The Conference took place in Baku on April 3–7, 1962, and was devoted to the problem of starting materials for polymerization and polycondensation. 650 representatives of 103 organizations took part, and 142 papers were heard. D. F. Kutepov, vice-president of the State Committee for Chemistry of the Council of Ministers of USSR, presented a report on "The state and the prospects of development of monomer production." R. G. Ismailov discussed the problems of development of the petrochemical and refining industry. V. A. Kargin spoke about "The expansion of the realm of monomers in connection with progress in polymerization." The report of M. A. Dalin was devoted to the development of methods of production of olefin hydrocarbons. M. F. Nagiyev reported on "Contemporary problems of the technology of petrochemical synthesis." The section of olefin compounds heard reports on production of

of methylpentanes and of 2,3-dimethylbutane. Methods of synthesis of vinyl-cyclo-hexane were discussed by Ya. M. Paushkin and by A. V. Topchiyev, S. D. Mekhtiyev. The section of metal-organic chemistry heard a review report on "Phosphor organic monomers" presented by M. I. Kabachnik, Ye. L. Gefter, P. A. Moshkin and T. Ya. Medved'. M. I. Kabachnik, P. A. Moshkin, S. L. Varshavsky, L. P. Kofman, Ye L. Gefter, G. V. Tkachenko, A. A. Danilevich reported on an industrial method of synthesis of di-β,β-chlor-ethyl of vinyl-phosphinic acid from ethylene oxide and phosphorus trichloride. A series of reports on the synthesis of various phosphorus-containing monomers was presented by the Kazan school of chemists (A. N. Pudovik, Ye. V. Kuznetsov, B. F. Malichenko, O. P. Grishina, etc.). On the synthesis of phosphorus-containing dicarbonic acids reported V. V. Korshak, T. M. Frunze and V. V. Kurashev. Ye. F. Bucherenko (IOKh AN SSSR) reported on the possibility of synthesis of phosphorus-silicon hydrides starting from unsaturated phosphorus containing compounds and silicon hydrides. Reports on silicon-organic compound with alternating siloxane and carbon elements were presented by A. M. Polyakova, M. D. Suchkova and V. M. Vdovin (INEOS AN SSSR) and by N. S. Nametkin and N. A. Printula. (INKhS AN SSSR). Telamerization of silicon-organic cycles was discussed by K. A. Andriyanov and V. V. Severny (INEOS AN SSSR). A simple method for the synthesis of aryl-fluor-silicon-hydrides was proposed by Ye. A. Chernysheva and M. Ye. Dolgaya (IOKH AN SSSR). V. F. Mironov and H. N. G. Dzhurinskii reported on a new preparative method for the synthesis

of germanium-containing monomers. The synthesis of metacrylates and acrylates containing aluminum, boron, germanium was discussed by G. S. Kolesnikova, S. L. Davydova and N. V. Klimentova (INEOS AN SSSR) The only report on the use of hydrogen-containing silicon organic monomers, the manufacture of which is nonexistent, was made by A. Morozov (Goskhimkomitet). The section of starting materials for polycondensation heard reports on monomer production for the synthesis of polyamides and pol,ethers, polycarbonates and D epoxide resins. Production of maleic anhydride by oxidation of butylenes was discussed by B. L. Maldavskii. Reports from the Institute of Organic Chemistry, A. S. Latvian SSR discussed the possibility of production of maleic anhydride and'maleic dialdehyde from furfurol. Experimental data about production of phthalic anhydride by oxidation of o-xylol were given in reports by A. F. Kamneva and L. A. Muzychenko, and by Kh. Ye. Khcheyan, A. F. Pavlichev., S. M. Arbitman, B. K. Kruptsov. Several communications dealt with methods for production of terephthalic acid. Production of hydroquinone and resoncinol by oxidation of *p*- or *m*-diisopropylbenzenes with air oxygen was discussed by V. V. Fedorov, M. S. Belen'kaya, et. al P.A. Moshkin, N. I. Kutsenko, L. K. Filippenko proposed a method for production of dicarboxylic acids with ten carbon atoms in the chain, using vinyl as starting material. Reports from INEOS and INKhS AN SSSR dealt with a new manomer for the production of the syntheric fiber dode-Kalaktan (L. I. Zakharkin, V. V. Korneva, G. M. Kunitstsraya, A. N. Bashkirova, V. V. Kamzolkin, K. M. Sokova). Data on the synthesis of perchloro-

alkenes, perechloro-alkendienes and perchlorocyclodienes were given by Yu. G. Mamedaliyev and M. M. Guseinov (INKhP AN AzSSR). Ye. G. Denisov, V. V. Kharitonova (IKhF AN SSSR) discussed the mechanism of oxidation of cyclohexanol to cyclohexanone. The section of vinyl compounds heard the survey report by M. F. Shostakovskii on "The state and prospects of development of the manomer chemistry on the base of vinyl compounds". The conference heard reports on the synthesis of new monomers from acetylene and derivates of acrylic acids, vinyl ethers of the aromatic series, vinyl ethers of penta-erythrite (IOKh and Irkutsk IOKh AN SSSR), vinyl-carboxylic acids (IVS AN SSSR), vinyl suabstituted cyclic hydrocarbons (INKhP AN SSSR), vinyl substituted cyclic hydrocarbons (INKhPAN AzSSR), etc. Direct synthesis of acrylonitride on the basis of propylene was reported (Baku Experimental Factory, Inst. im. Karpov and Inst. of Chem. Science of KazSSR). Reports dealing with production of vinyl chloride from dichloro-ethane and acetylene, synthesis of allyl-vinyl ethers, vinyl substituted cyclohexane hydrocarbons (INKhP AzSSR), methods of purification of vinyl chloride, synthesis of unsaturated oxides, unsaturated nitro-compounds, etc., were also heard. The concluding plenary session heard a report by N. N. Semenov.

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000509530005-4"

S/249/62/018/010/003/004
D204/D307

AUTHORS: Dalin, M. A. and Lobkina, V. V.

TITLE: Some laws governing the oxidative ammonolysis of propylene

PERIODICAL: Akademiya nauk Azerbaydzhanskoy SSR. Doklady, v. 18, no. 10, 1962, 27-29

TEXT: The heat of reaction

$$C_3H_6 + NH_3 + \frac{3}{2} O_2 \longrightarrow C_3H_3N$$

has been calculated as -123.332 kcal.mole^{-1} from literature data, and the standard change of entropy as 17.957 cal-mole^{-1}deg^{-1}. The free energies varied from -118.262 kcal-mole^{-1} at 298°K to -101.232 at 1298°K, the corresponding values of log K_p (where K_p is the

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S/249/62/018/010/003/004
B204/B307

Some laws governing ...

equilibrium constant) being 86.0 and 17.0. As was confirmed experimentally, the reaction may proceed practically to completion, even at 1000°C. The degree of conversion of propylene, α, is given as $1-e^{-k\tau}$, where τ is time and k is a velocity constant, which obeys Arrhenius' equation. This expression was confirmed experimentally between 430 and 470°C. There are 2 figures and 3 tables.

SUBMITTED: October 10, 1962

Card 2/2

DALIN, M.A., akademik; LOBKINA, V.V.; ABAYEV, G.N.; SEREBRYAKOV, B.R.; PLAKSUNOVA, S.L.

Production of acrylonitrile based on propylene and ammonia.
Dokl.AN SSSR 145 no.5:1058-1060 '62. (MIRA 15:8)

1. AN Azerbaydzhanskoy SSR (for Dalin).
(Acrylonitrile) (Propene) (Ammonia)

DALIN, M.A.; SEREBRYAKOV, B.R.; LOBKINA, V.V.; GAMIDOVA, E.B.

Mechanism underlying the reactions taking place in the process of oxidizing ammonolysis of propylene. Azerb.khim.zhur. no.4:99-102 '63. (MIRA 17:2)

PIS'MAN, I.I.; [illegible]; [illegible]
SAMOTAYEVA, T.A.; SA[illegible]VA, I.V.

Production of α-butylene by the dehydration of n-butyl alcohol on aluminum [illegible]. Part 2. Some problems of kinetics. Azerb. [illegible]. [illegible] (MIRA 17:3)

GUREVICH, V.R.; DALIN, M.A.; VEDENEYEVA, L.Ya.

Polymerization of ethylene on a chromia catalyst. Azerb.khim. zhur. no.6:37-43 '63. (MIRA 17:3)

SEREBRYAKOV, R.V.; DALIN, M.A.; KONOVAL'CHUKOV, A.G.

Some regularities in the reaction of cyanoethylation of hydrocyanic acid. Dokl. AN Azerb. SSR 19 no.11:31-34 '63. (MIRA 17:3)

1. BNIIolefin.